



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/802,008

03/16/2004

Leo M. Pedlow JR.

SNY-T5717.02

3326

24337 7590 04/07/2008  
MILLER PATENT SERVICES  
2500 DOCKERY LANE  
RALEIGH, NC 27606

EXAMINER

HENNING, MATTHEW T

ART UNIT

PAPER NUMBER

2131

MAIL DATE

DELIVERY MODE

04/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/802,008	<b>Applicant(s)</b> PEDLOW ET AL.	
	<b>Examiner</b> MATTHEW T. HENNING	<b>Art Unit</b> 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :3/16/04; 11/3/04; 3/15/05; 6/3/05; 7/29/05; 10/28/05; 1/30/06; 3/6/06; 4/25/06; 6/30/06; 7/10/06; 7/24/06; 10/30/06; 2/12/07; 5/17/07; 6/29/07; 9/4/07; 1/14/08.

This action is in response to the communication filed on 3/16/2004.

**DETAILED ACTION**

Claims 1-38 have been examined.

***Title***

The title of the invention is acceptable.

***Information Disclosure Statement***

The information disclosure statement(s) (IDS) submitted prior to this office action are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statements.

***Drawings***

The drawings filed on 3/16/2004 are acceptable for examination proceedings.

***Claim Objections***

Claims 29-38 are objected to because of the following informalities: Claim 39 recites “a vide on demand system”, while the claims are not directed to providing video on demand. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims are directed towards abstract ideas. The claims provided method steps for manipulating data, while providing no practical application of the data manipulation. Because the claims do not act upon an article or physical object, the claims do not

Art Unit: 2131

“transform” an article or physical object to a different state. Therefore, in order for the method to have a practical application in must produce a useful, concrete, and tangible result. The claimed method does produce a useful and concrete result, however, the result is not tangible.

b) "TANGIBLE RESULT"

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”). “[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection.” Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”). In other words, the opposite meaning of “tangible” is “abstract.” See MPEP Section 2106

In this case, the result is simply the same data represented in a different manner, and as such the method produces no beneficial result. As such, the claims are directed towards an abstract idea, which does not fall within the statutory categories of patentable subject matter. Therefore the claims are rejected under 35 USC 101.

Note that providing a practical application of the abstract idea in the claims would result in a "tangible result", and as such would correct this issue.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter*

Art Unit: 2131

1 *sought to be patented and the prior art are such that the subject matter as a whole would have*  
2 *been obvious at the time the invention was made to a person having ordinary skill in the art to*  
3 *which said subject matter pertains. Patentability shall not be negated by the manner in which*  
4 *the invention was made.*  
5

6 Claim 1-2, 7, 8, 15-20, 29-30, and 34-37 are rejected under 35 U.S.C. 103(a) as being  
7 unpatentable over Bonan et al. (US Patent Number 7,292,692) hereinafter referred to as Bonan,  
8 and further in view of Colligan et al. (US Patent Number 6,415,031) hereinafter referred to as  
9 Colligan.

10 Regarding claims 1 and 29, Bonan disclosed a method of pre-processing content in a  
11 video on demand (VOD) system [See Bonan Abstract], wherein the content is identified by a  
12 first set of packet identifiers (PIDs) [Col. 8 Lines 28-47], the method comprising: receiving  
13 content, the content having packets that are to be encrypted by a first encryption system [See  
14 Bonan Col. 8 Lines 28-47]; selecting packets in the content according to a selective encryption  
15 selection criterion to produce selected packets [See Bonan Col. 8 Lines 28-47]; duplicating the  
16 selected packets to produce duplicate copies of the original packets [See Bonan Col. 8 Lines 28-  
17 47]; identifying the duplicate copies using a second set of PIDs [See Bonan Col. 8 Lines 28-47];  
18 inserting the duplicate copies of the original packets identified by the second set of PIDs into the  
19 content [See Bonan Col. 8 Lines 28-47] [Further See Bonan Col. 6 Paragraph 3, Col. 11 Lines  
20 59-65 and Col. 12 Lines 9-12], but Bonan failed to specifically disclose that the packets that are  
21 to be encrypted being marked by a set encryption flag for all packets designated to be encrypted,  
22 and clearing all encryption flags in the content except for the selected packets having the first set  
23 of PIDs.

Art Unit: 2131

1 Colligan teaches that in a video on demand system, wherein less than all packets are to be  
2 encrypted, the packets to be encrypted should be marked using scramble control flags in order to  
3 tell the encryptor which packets to encrypt [Colligan Col. 11 Lines 31-57].

4 It would have been obvious to the ordinary person skilled in the art at the time of  
5 invention to employ the teachings of Colligan in the content packet encryption system of Bonan  
6 by setting a scramble control flag in each packet to be encrypted. This would have been obvious  
7 because the ordinary person skilled in the art would have been motivated to provide a way for  
8 the encryptor to tell which packets to encrypt. In this combination, it further would have been  
9 obvious to clear the flag of all packets which are not to be encrypted. This would have been  
10 obvious because the ordinary person skilled in the art would have been motivated to indicate that  
11 these packets are not to be encrypted by the encryptor.

12 Regarding claims 2 and 30, Bonan and Colligan taught that the encryption flag is  
13 encoded using transport\_scrambling\_control data bits [See Colligan Col. 11 Lines 31-57].

14 Regarding claims 7-8 and 34, Bonan and Colligan taught generating a program  
15 association table (PAT) and a program map table (PMT) identifying the second set of PIDs, and  
16 storing the PAT, the PMT, and the content on a VOD server [See Bonan Col. 9 Line 36- Col. 10  
17 Line 19 wherein the PATs were well known and obvious in the art at the time of invention].

18 Regarding claims 15-16 and 35, Bonan and Colligan taught encrypting the packets  
19 having the encryption flag set using the first encryption system, and that the encryption under the  
20 first encryption system is carried out in an off line encryption system [See Bonan Col. 8 Lines  
21 28-47 and Colligan Col. 11 Lines 31-57].

1           Regarding claims 17 and 36, Bonan and Colligan taught encrypting the duplicate copies  
2   using a second encryption system [See Bonan Col. 7 Lines 8-33].

3           Regarding claim 18, although Bonan and Colligan did not specifically teach adjusting a  
4   program clock reference (PCR) in packets containing adaptation fields to account for insertion of  
5   the duplicate copies, it well known in the art at the time of invention that MPEG streams have a  
6   required PCR and that multiplexing streams can cause delays in the timing, which is solved by  
7   re-stamping the packets with an adjusted PCR. Therefore, it would have been obvious to the  
8   ordinary person skilled in the art at the time of invention that inserting duplicate packets into the  
9   packet stream would require adjustment of the PCR. This would have been obvious because the  
10   ordinary person skilled in the art would have been motivated to correct the PCR according to any  
11   delay in transmission produced by the multiplexing of the duplicated packets.

12           Regarding claim 19, although Bonan and Colligan did not specifically disclose deleting  
13   NULL packets from the content stream, it would have been obvious to the ordinary person  
14   skilled in the art at the time of invention to have done so. This would have been obvious because  
15   the ordinary person skilled in the art would have been motivated to reduce unnecessary network  
16   bandwidth usage from NULL packets.

17           Regarding claim 20, Bonan and Colligan disclosed that the selecting, duplicating,  
18   identifying, inserting and clearing functions are carried out in an offline selective encryption  
19   processor (OSEP) [See Bonan Fig. 2 Elements 201-203].

20           Regarding claim 37, Bonan and Colligan disclosed comprising an add/drop re-  
21   multiplexer that deletes either the selected packets or the duplicate copies depending upon a  
22   target receiver's decryption capability [See Bonan Col. 7 Lines 48-59].



7           Sezer, on the other hand, teaches the use of trick plays in a video on demand system  
8   including identifying packets of content used in trick play modes (See Sezer Paragraphs 0158-  
9   0159), and creating forward and reverse trick mode content fields and forward and reverse trick  
10   mode index tables (See Sezer Paragraphs 0156-0157), modifying the forward and reverse trick  
11   mode index tables to account for insertion of the duplicate copies (See Sezer Paragraphs 0158-  
12   0159), wherein the packets of the content used in trick play modes comprise intra-coded frames  
13   (See Sezer Paragraph 0081), and storing the forward and reverse trick mode files, the forward  
14   and reverse trick mode index tables on a VOD server (See Sezer Paragraphs 0156-0159).

15 It would have been obvious to the ordinary person skilled in the art at the time of  
16 invention to employ the teachings of Sezer in the VOD system of Bonan and Colligan by  
17 including the teachings regarding trick modes in the VOD system. This would have been  
18 obvious because the ordinary person skilled in the art would have been motivated to provide the  
19 user of the VOD system with the flexibility of trick play.

20 *Conclusion*

21            Claims 1-38 have been rejected.

1           The prior art made of record and not relied upon is considered pertinent to applicant's  
2 disclosure.

3           Any inquiry concerning this communication or earlier communications from the  
4 examiner should be directed to MATTHEW T. HENNING whose telephone number is  
5 (571)272-3790. The examiner can normally be reached on M-F 8-4.

6           If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
7 supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the  
8 organization where this application or proceeding is assigned is 571-273-8300.

9           Information regarding the status of an application may be obtained from the Patent  
10 Application Information Retrieval (PAIR) system. Status information for published applications  
11 may be obtained from either Private PAIR or Public PAIR. Status information for unpublished  
12 applications is available through Private PAIR only. For more information about the PAIR  
13 system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR  
14 system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would  
15 like assistance from a USPTO Customer Service Representative or access to the automated  
16 information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

17  
18  
19 /Matthew T Henning/  
20 Examiner, Art Unit 2131  
21 /Ayaz R. Sheikh/  
22 Supervisory Patent Examiner, Art Unit 2131